position make no opposition to this movement, so that no force is required to first elevate in this way, and then to rotate to the proper position.

In bilateral dislocation it is quite probable that this manœuvre, carried out first on one side and then on the other, will meet with success. This is the movement, the author thinks, which has been made in those cases in which reduction has followed voluntary muscular action.

OBSTETRICS.

UNDER THE CHARGE OF

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FIVE CASES OF ABDOMINAL SECTION AFTER CONFINEMENT.

ARMSTRONG (*Montreal Medical Journal*, 1893, No. 1) reports four cases as follows:

Case I. A woman pregnant three or four times, previous labors normal. Soon after getting up on the tenth day she became feverish, complaining of abdominal pain and soreness. During the next four weeks patient had a very fluctuating temperature, an occasional chill, frequent sweats and abdominal pain. On opening the abdomen the omentum was found adherent to the uterus and tube of the left side; and on carefully detaching the adherent margin, a pus-sac was found, the walls of which were formed anteriorly by the omentum, below by the left tube and ovary, and above by knuckles of intestine. The pus was removed, the tube and ovary carefully tied off, as well as fully one-third of the omentum. The patient recovered.

Case II. A woman confined of her second child, was attended in labor by a midwife. On seventh day developed a severe rigor, with temperature 104° and quick pulse. Examination disclosed a tender abdomen with a large mass in the left side of the pelvis, and a soft patulous os. No fluctuation could be obtained. Before section uterus was curetted and some decomposed placental tissue removed. Notwithstanding the great care used in opening the abdomen, the uterus was punctured. The contents of the left side formed one mass of inflammatory exudation, all the structures being glued together and adherent to the uterus and to the pelvic wall. The tissues were so friable and softened that it was with difficulty that ligatures could be applied without cutting. Before operation patient's temperature was 103⅘°, with a pulse of 130; the same evening, notwithstanding an operation of one

and a half hours, temperature had fallen to 99⅗°, pulse 110. On the evening of the eighth day, the temperature suddenly going up, a large pus-cavity was discovered which had followed the track of the glass drainage-tube. The result of this case also was favorable.

Case III. A woman at the end of her second puerperal period, which had been perfectly normal, was, after being given an enema, seized with intense abdominal pain with great general tenderness and vomiting. One small stool followed the enema, and her bowels did not again move. Symptoms of general peritonitis appeared, and on the following day the abdomen was opened for exploration. The woman died twenty-four hours after receiving the enema. At the examination of ovaries and tubes removed at the operation no marked change could be found. Careful search was made for volvulus and hernia, but no cause for these was discovered, and although water was injected into the rectum, all passed into the colon and ileum, none passing into the peritoneal cavity. The author not being able to make a post-mortem, could not conclude as to the cause of the trouble, but is inclined to think that a volvulus of the sigmoid was produced by the enema, which had untwisted, but not before some pyogenic micro-organisms had escaped into the peritoneal cavity.

Case IV. A healthy III-para. Two months after confinement, while nursing her child, was suddenly seized with a severe rigor, followed by abdominal pain and fever, which subsided in a week, only to recur in fifteen days. On operation a tubo-ovarian abscess on each side was found and evacuated. Patient made a perfect recovery.

In the fifth case symptoms resembling the above were present; this patient also recovered.

The writer thinks that greater caution against sepsis when attending confinements and miscarriages should be used. The technique of a case of midwifery should closely resemble that for a modern surgical operation. The experience gained from these cases demonstrates the utility of proper surgical treatment in properly selected cases.

The Employment of the Electrical Cupping-glass to Produce Abortion.

Mollath (*Centralblatt für Gynäkologie*, 1893, No. 26) reports a very interesting case in which electricity, by means of a cupping-glass, was employed to produce abortion. The patient was a multipara with a flat rhachitic pelvis. All her previous labors had been protracted, but otherwise normal. At her fourth confinement embryotomy had been performed on account of threatened uterine rupture. In her sixth parturition, a traumatic rupture of the uterus had taken place, this tear opening on the anterior and right side of the cervix wall and parametrium. The child was thrown into the abdominal cavity, being extracted through the tear. The woman recovered. Again becoming pregnant, the woman sought advice. On examination, a large amount of scar tissue was found extending along the vagina and cervix.

Abortion was decided on; the patient was then about three months pregnant. The electrical cupping-glass was used with the galvanic current, the application being made twice a day and for two minutes at a time, good

pains resulted, and in a few days the fœtus was expelled. The placenta was delivered manually. The woman did well. Eleven months afterward the patient again appeared, and pregnant. On examination the os was found firmly closed, uterus strongly retroflexed and moderately movable; patient was seven or eight weeks gravid. The cervix had a large amount of scar tissue and was very thin. After various methods of dilatation of the os had been tried, these methods extending over several days, galvanism was applied, five milliampères for twenty-five minutes (the constant stream three times in five minutes, with two pauses of five minutes' extent). Pains immediately began and continued for half an hour after the close of the sitting. This method was applied several times daily, the current being increased to ten milliampères at the ninth application. A bougie was now inserted into the uterus. Seven days after the first application of the galvanism the fœtus was expelled. Placenta expressed by the hand and uterus curetted. Puerperal period normal.

In applying this method, the author uses the constant current from a large Hirschmann's apparatus, and a cupping-glass such as is used on the breast. The cupping-glass being connected with the negative pole and placed on the breast, the large flat electrode is placed on the abdomen and connected with the positive pole.

Symphysiotomy in an Extremely Contracted Osteomalacic Pelvis.

Dimmock (*British Med. Journal*, 1893, No. 1695) reports a case in which symphysiotomy was done for osteomalacia. The patient, a Hindoo, had an irregularly contracted pelvis of extreme degree, the opening of the brim being a mere slit; the finger only being able to enter it. The external measurements were as follows: Highest points of crests, 8½ inches; highest points of spines, 8 inches; between trochanters, 8½ inches; external conjugate, 6 inches. After section the pubic joint sprang apart to a distance of about 1¼ inches. The space at the pelvic brim being even yet too small, the fœtal head had to be perforated; this was done by trephining, and the head extracted with cranioclast. It was noticed that before the operation the horizontal rami of the pubes were in close approximation, so that the shape of the opening of the brim was in the form of a triangle; but when the joint was cut through they separated to a certain extent, and the conjugate diameter then measured about 2½ inches. After delivery the bones were perforated by a drill; but the bone close to the symphysis was so softened by the disease that it was resolved to abandon the idea of fixing the bones by silver sutures, and finding that the cut surfaces of the joint could be approximated by moderate pressure, the wound was brought together by deep wire sutures passing close to the bone, with superficial sutures between them. Patient made a good recovery, the only complication being a slight rise in temperature, relieved by the passing of some ascaris lumbricoides. The bones united firmly.

A Case of Uterine Inversion.

Abeg (*Centralblatt für Gyn.*, 1893, No. 20) relates the case of a primipara, thirty-three years old, who came under his care suffering from inversion of

the uterus. Three weeks before she had been delivered by a careless nurse. At time of entrance patient was in an anæmic condition, with a temperature of 36.9° C., pulse 96–100, and a loud systolic basic heart-murmur. Internal examination showed the uterus inverted in the vagina, the mouths of the tubes showing plainly. There was no history of rheumatism. During the next four days attempts at replacement were made by means of the colpeurynter and strips of iodoform gauze, which efforts on the morning of the sixth day were successful, the uterus suddenly going back into its normal position. The heart murmur proved to be due to anæmia. The patient had during the three preceding weeks lost considerable blood in small amounts. The writer considers the colpeurynter an effective means of replacing an inverted uterus.

A Pregnant Uterus Bicornis.

Ratcliffe (*British Medical Journal*, 1893, No. 1695) exhibited specimens taken from a woman, aged thirty, who had been killed by an accident. On post-mortem the two pear-shaped horns of the uterus were found lying completely in the true pelvis. The rectum was mesial, and separating the two horns was a median recto-vesical fold two inches high. The right horn was four and one-eighth inches long, with a circumference of six inches, and its cavity showed a well-marked decidua, but no fœtus. The left horn was four and one-half inches long, with a circumference of six and one-half inches, and it contained a fœtus between the second and third months of gestation. The right ovary (that on the opposite side to the pregnant horn) showed a true corpus luteum, and there was none in the left ovary. The two uterine cavities were joined by narrow necks into a shallow cervical cavity about one-fourth of an inch deep, and freely patent into the vagina, which was partially double. On the upper and lower walls was a raphé not united. The woman menstruated regularly up to the time of her death.

Placenta Prævia associated with Unusual Size and Shape of Placenta.

Boxall (*Ibid.*) exhibited two specimens, in both of which the fœtus had been extruded, together with the placenta, in an unruptured sac, one at the eighth and the other at the sixth month of gestation. Both women were secundiparous. In the first specimen the placenta was larger than usual, and covered about one-third of the fœtal envelope, and, in addition, was elongated in a downward direction, so that, though as a whole the placenta maintained a normal position, the lower end of it projected in front of the fœtal head, and thus, by encroaching on the dangerous zone, gave rise to hemorrhage for five days before the expulsion of the mass. The whole of the chorion was missing, having separated from the margin of the placenta, and was probably passed with clots. In the second specimen the placenta was spread over the lower half of the fœtal envelope, and was so thin that, though it filled the lower segment, the head could be easily felt through it. The case was further complicated by a fibroid tumor of the anterior uterine wall. Some hemorrhage had taken place.

Ruptured Uterus and Vagina.

Routh (*Ibid.*) reported the case of a woman in which the house physician of the Charing Cross Hospital Maternity Department had performed version for an arm presentation, and delivered the child without much difficulty. The woman then became collapsed. There was some hemorrhage externally and symptoms of internal bleeding. It was found on examination that the vagina and the lower released uterine segment were badly torn; the umbilical cord passed through the rent. Intravenous injections of warm salt solution were tried, and the patient made more comfortable, but later she developed septic pleurisy and a parotid bubo, and died on the eighth day.

Distention of the Vagina and Uterus, with Muco-puriform Fluid, accompanied by Dilatation of the Bladder and Ureters.

Eccles reports, in the *Transactions of the Obstetrical Society of London*, the case of a second child of healthy parents in which, a few days after birth, a large tense swelling appeared in the vagina. About two months later the abdomen began to swell and become tympanitic. Vomiting was present. The child had retention of urine, but by means of a catheter a pint of clear urine was drawn. Rectal examination showed a tense mass lying in front of the anterior wall. The child eventually died, and post-mortem revealed a dilated vagina containing some ounces of muco-purulent fluid. The bladder was dilated and much hypertrophied. Uterus increased in size, but neither Fallopian tube was distended. The vagina was occluded at its lower end, its cavity measured four inches by three broad, and four inches from before backward. The cervix uteri would easily admit the little finger. Both ureters were dilated, and the kidneys hydronephrotic to a marked degree.

Fœtal Urine a Possible Source of the Liquor Amnii.

Helme (*British Medical Journal*, 1893), in an article on the intra-uterine secretion of urine by the fœtus, gives an analysis of urine passed by a child immediately after birth and before it had breathed. The urine was passed spontaneously.

Specimen 1 (half-ounce): No sugar; no albumin; no phosphates; no sulphates; chlorides present; urea present, 0.15 per cent., or 0.66 grains to the ounce; kreatinin present.

In another specimen, taken eight and one-half hours after birth, the examination was as follows: No sugar; no albumin; no phosphates; sulphates present; chlorides present; urea present, 0.3, or 1.32 grains to the ounce; kreatinin.

These analyses show that urea is present in considerable quantity in the urine of the normal living fœtus. It follows, therefore, that this urine is a possible source of the urea found in the liquor amnii, and that the fœtal renal secretion is a possible source of the liquor amnii itself. Kreatinin is known to be present in small amount in the amniotic fluid, but its presence in fœtal urine is especially interesting. Formulating his conclusions he sums up as follows:

The fœtal kidneys secrete actively during intra-uterine life.

The urine of the normal living fœtus contains urea and kreatinin.

The fœtal renal secretion is a possible source of origin of the liquor amnii; this is shown by the presence of the above substance in both fluids. The presence of sulphates and phosphates in the liquor amnii, and their absence in the fœtal urine, would point to there being an additional source of origin of the liquor amnii. The amount of urea and kreatinin excreted in the urine undergoes a marked increase during the first few hours after birth.

Poisoning by the Self-administration of "Diachylon" Lead Plaster for Procuring Abortion.

Pope (*British Medical Journal*, No. 1696, 1893) reports two fatal cases resulting from the taking of "diachylon" lead-plaster.

In the first case, a married woman, no history of lead-poisoning could be found, and although analysis after death produced no trace of the metal, incineration of a portion of one kidney showed its presence.

An examination of the body of the second case, which occurred some time after the first, showed the skin and conjunctivæ of a yellowish color; nothing abnormal could be found in the brain or other organs, except the intestines, which were contracted and contained a yellowish sticky fluid.

Both cases during life had had abdominal pain and tenderness, lost or weakened reflexes, although sensation was good; the characteristic blue line showed upon the gums of both.

In each case toward the close of life a spasm took place, the first dying in coma, the second from paralysis of the diaphragm.

In the first case considerable suspicion, and in the second direct evidence, showed that this preparation was taken with the idea of procuring abortion. Great care should be exercised by druggists in dispensing these preparations.

Four Cases of Extra-uterine Pregnancy.

Mackenrodt, at a meeting of the Gesellschaft für Geburtshülfe und Gynäkologie in Berlin (*Centralblatt für Gynäkologie*, 1893, No. 22), reported four cases of extra-uterine pregnancy, at the same time exhibiting specimens.

In the first case the tumor was found in the right tube, and a microscopical examination showed the presence of chorial villi. No trace of a fœtus could be found. The left tube was also enlarged and thickened, presenting symptoms of inflammatory change.

The second patient, aged thirty-one years, had symptoms of pain and hemorrhage, which had existed for some time. A tumor the size of a fist could be felt behind and to the left of the uterus, quite near it. The tube contained many villi, but no fœtus. Both the above cases recovered.

A right tubal pregnancy with pyosalpinx of the left tube was present in the third case. The fœtal sac had ruptured, causing considerable bleeding into the abdominal cavity. There was atresia of the tube, the ampulla containing an isolated collection of pus the size of a hazelnut.

The fourth case was interesting on account of the blood found in the abdominal cavity, which could not be accounted for, as the left tube, which

contained the pregnant sac, was not ruptured; there had been an old peritonitis. Considerable change and thickening had gone on in the right tube. Patient recovered.

He also reports a fifth case in which a patient, twenty-eight years of age, was being treated for cervical catarrh. Menstruation was absent. Considerable pain was felt in the right side, and examination showed an enlargement of the right tube, soft in character. Pressure on the breasts showed that colostrum in large quantities was present. Operation showed no pregnancy present, but the right tube was the thickness of two thumbs, and filled with pus. The fimbriated extremity was flattened and adherent to the cæcum. This patient recovered, but only after a considerable period.

A Case of Cæsarean Section.

Keith (*British Medical Journal*, 1893, No. 1696) gives his experience in operating upon a secundipara. The woman was small in size, and had an available conjugate of but three inches or under; the lateral space was diminished, and the descending rami of the pubes were fixed at a very acute angle. Both symphysiotomy and Cæsarean section were discussed, but owing to the peculiar shape of the pelvis, and particularly the pubic arch, the latter operation was decided on. It is futile, the author says, to give exact directions as to the position of the abdominal incision; it must be made entirely in regard to the situation and size of the uterus, bearing in mind that the section of that organ is to extend downward from close to the fundus. After delivery of the child the uterus contracted well, and after all the stitches had been introduced and tied, very little pressure was required to cause complete contraction. The Fallopian tubes were ligated, the ovaries not being interfered with. The writer discusses the various details of the operation, and concludes his article by saying that the question does not seem now so much to lie between the Porro and the Cæsarean operation, but between the latter and the division of the symphysis; the comparison, however, is limited, as with a conjugate of less than two and five-eighths or two and three-quarters inches, symphysiotomy is useless. In the hands of those accustomed to operations, Cæsarean section must be one of the most simple of all operative procedures.

Scarlet Fever in Pregnancy, with Infection of the Fœtus.

Ballantyne and Milligan (*Edinburgh Medical Journal*, July, 1893) record the case of a primipara, twenty years old, who was found on the physician's visit to be suffering from a typical scarlatinal sore-throat. At this time she was about seven months pregnant. Later the usual rash and temperature appeared, the former being decidedly marked on patient's chest and limbs. Two days later labor set in. The early stages of the parturition were normal, but the expulsion was somewhat delayed by weak uterine contractions. There was also some hemorrhage. The disease ran a typical course and in six days desquamation began.

The infant when born showed all the signs of immaturity; it was small in size and its nails were imperfectly formed. It was, however, born alive and cried, although feebly. As at birth it was covered by a thick layer of vernix

caseosa, the condition of the skin could not be seen, but later it was found that it also had, not, as was first supposed, the physiological redness of the newborn, but scarlatina. It moaned at intervals and was restless. The skin was red all over the body, but especially on the shoulders and thighs. Desquamation began at about the same period as in the mother. Both patients entirely recovered. After giving a general view of the literature of scarlet fever in pregnancy, the writer formulates the following conclusions:

1. When scarlatina occurs in pregnancy, the fœtus *in utero* is usually, but not invariably, affected.

2. It would seem as if the infection of mother and fœtus is practically simultaneous, for the infant at birth shows the fever in the same stage as that reached in the mother, and desquamation usually occurs at the same time in both.

3. The clinical features of scarlatina in the fœtus and newborn are the same as in later life; but the diagnosis is rendered difficult by the resemblance these symptoms bear to the normal conditions (erythema, desquamation, etc.) met with in the neonatal state.

4. The prognosis as regards both mother and fœtus is grave, but death does not invariably occur. The supervention of septicæmia is the greatest danger, and the chief treatment should be its prevention.

Puerperal Septic Intoxication (Sapræmia): its Symptoms and Treatment.

McCann (*Lancet*, 1893), in discussing the subject of septic intoxication in puerperal women, considers that in order to obtain a thorough conception of the nature of the malady it is necessary to draw analogies from general surgery and to look upon a puerperal woman as having undergone an operation—labor—of greater or less severity, and as possessing a a wounded surface in various stages of the healing process. Putrefaction becomes a predisposing cause of septic infection—first, by exciting inflammation and suppuration, thus providing a suitable medium, the inflammatory exudation or pus, in which pathogenic organisms may develop; and secondly, by lowering the vitality of the tissues, in consequence of which they are more readily invaded by the pathogenic fungi. The effects of putrefaction are local and general: the former consist of septic inflammation and suppuration dependent upon the irritation caused by the chemical products of putrefaction; the latter of a febrile affection.

The poison which is the product of the action of saprophytic organisms (they do not multiply in the blood) does not increase in the system, the effects being proportional to the dose, If the dose be small and the period during which absorption continues short, the resultant affection is known as "sapræmic fever." This form is most frequently met with among puerperal women.

Among the most common symptoms of septic intoxication are frontal headache, drowsiness, and a feeling of fatigue like that due to physical exertion, but also frequently accompanied by sleeplessness; general gastric disturbance, with jaundice. These symptoms are often present when the temperature is only slightly elevated; as the disease progresses there is a

further elevation up to 102° or 103°. Rigors, common in septicæmia, are rare in sapræmia. The fever is of a more continued character, marked daily variation being absent. Pulse-rate accelerated.

The lochia may or may not be foul; although the external discharge may not show signs of putrefaction, that which is pent up in the uterus may be foul in odor.

As regards treatment, it is necessary as far as possible to remove the septicity of the lochial discharge and to increase the elimination of the poison absorbed. For the first the author recommends the use of a continuous douche of half a pint of 1 : 2000 sublimate solution, or one pint of 1 : 4000 at a temperature of 115°, to be followed by the injection of boric acid or distilled water. During this process the patient's shoulders should be raised to secure good drainage. For the second the bowels should be kept open by means of sharp purgation, and diaphoresis secured by Dover's powders.

GYNECOLOGY.

UNDER THE CHARGE OF

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The Normal Endometrium.

Hofmeier (*Centralblatt für Gynäkologie*, 1893, No. 33) criticises Wyder's statement that the cilia of the corporeal epithelium have a motion from the os internum toward the tubes. Not only were his own studies conducted upon fresh uteri removed from mammals, in which the conditions ought to be the same as in the human female, but he also examined organs removed at the operating-table and at once immersed in warm saline solution. In several of the latter he demonstrated conclusively by removing strips of endometrium and placing them under the microscope, that minute particles of charcoal were invariably carried by the ciliary movement *from the fundus toward the os internum*.

Ligation of the Uterine Arteries in Cases of Fibromyoma.

Küstner reports two cases of uterine fibroid in which he ligated the uterine arteries per vaginam, having in one instance been obliged to abandon a total extirpation after opening the vaginal fornix. In both cases the tumor diminished in size within a few weeks, and the hemorrhages ceased. Whether the tumor continues to diminish to the same extent as after castration is as yet a matter of conjecture.

In another case the uterus was generally enlarged (though no fibroid could be detected), measuring five inches in depth, while the patient had profuse hemorrhages. Curettage was performed without benefit. The uterine arteries